

U.S. Pat. Appl'n 10/664,507
Amendment

IN THE CLAIMS

Kindly amend the claims as indicated, cancelling Claims 2, 3, 11, 12, 14, 15, 19, 21, and 24-26 without prejudice or disclaimer as to the filing of a divisional application.

1. (Currently Amended) A device for servicing an automobile air conditioner, comprising:
a pressurized container of at least one chemical addable to the air conditioner,
said container having a first valve;
an actuator coupled to said first valve that selectively opens said first valve;
a hose having a first end and a second end, said first end connected to said actuator and
said second end coupleable to a service port of the air conditioner, said hose further comprising a
first section of hose and a second section of hose;
a T-connector disposed in said hose having an inlet in communication with said first end
of said hose, a first outlet, a second outlet in communication with said second end of said hose,
and a check valve, said first section of hose being connected between said actuator and said inlet
and said second section of hose being connected between said second outlet and a coupler
connectable to the automobile air conditioner service port, said T-connector further including a
main body from which said inlet and said second outlet project, said inlet including a first stem
rotatably disposed in one end of said main body, said second outlet including a second stem
rotatably disposed in an opposite end of said main body, said main body and said gauge being
rotatable with respect to said hose; and
a pressure gauge connected to said first outlet of said T-connector and in communication
with said second end of said hose,
wherein when said second end is coupled to an automobile air conditioner service port
and said actuator is not activated, said pressure gauge measures a pressure of the air conditioner,
and when said second end is coupled to an automobile air conditioner service port and said
actuator is activated, said at least one chemical is released from said pressurized container and
into the air conditioner via said hose and the service port,
and wherein said check valve is biased closed to enable flow in from said second outlet to
said first outlet to enable communication between the service port and said gauge,

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and wherein when said actuator is activated, said pressurized chemical released from said container overcomes the bias of said check valve and exits said T-connector via said second outlet.

2. (Cancelled).
3. (Cancelled).
4. (Currently Amended) A device for servicing an automobile air conditioner according to Claim 31, wherein said check valve comprises:
a stopper seatable on a shoulder; and
a spring biasing said stopper onto said shoulder to close said valve.
5. (Original) A device for servicing an automobile air conditioner according to Claim 1, said first end of said hose being permanently connected to said actuator.
6. (Original) A device for servicing an automobile air conditioner according to Claim 5, said actuator being permanently connected to said container.
7. (Original) A device for servicing an automobile air conditioner according to Claim 1, said first end of said hose being removably connected to said actuator.
8. (Original) A device for servicing an automobile air conditioner according to Claim 7, said actuator being removably connected to said container.
9. (Original) A device for servicing an automobile air conditioner according to Claim 1, wherein said container is an aerosol can and said first valve includes a valve stem.
10. (Original) A device for servicing an automobile air conditioner according to Claim 9, said actuator comprising:

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a housing press-fittable onto a shoulder of said pressurized container; and
a button attached to said housing in a cantilever manner, said button including a fluid flow path in communication with said valve stem and said first end of said hose.

11. (Cancelled).

12. (Cancelled).

13. (Currently Amended) A portable device for measuring an amount of refrigerant in an automobile air conditioner and adding additional refrigerant therein in an after-market environment, comprising:

a pressurized container of at least refrigerant addable to the air conditioner, said container having a first valve, said container being an aerosol can and said first valve including a valve stem;

an actuator coupled to said first valve that selectively opens said first valve, said actuator including a housing press-fittable onto a shoulder of said pressurized container and a button attached to said housing in a cantilever manner, said button including a fluid flow path in communication with said valve stem;

a hose having a first end and a second end, said first end connected to said actuator and said second end coupleable to a service port of the air conditioner, said first end of said hose in communication with said fluid flow path;

a T-connector disposed in said hose having an inlet in communication with said first end of said hose, a first outlet, a second outlet in communication with said second end of said hose, and a check valve; and

a pressure gauge connected to said first outlet of said T-connector and in communication with said second end of said hose,

wherein when said second end is coupled to an automobile air conditioner service port and said actuator is not activated, said pressure gauge measures a pressure of the refrigerant in the air conditioner, and when said second end is coupled to an automobile air conditioner service port and said actuator is activated, refrigerant is released from said pressurized container,

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overcomes a bias of said check valve, and enters into the air conditioner via said hose and the service port,

and wherein a user switches from measuring existing refrigerant in the automobile air conditioner to adding additional refrigerant by depressing said button.

14. (Cancelled).

15. (Cancelled).

16. (Currently Amended) A device for measuring an amount of refrigerant in an automobile air conditioner and adding additional refrigerant thereinto according to Claim ~~15~~13, wherein a user switches back from adding additional refrigerant to measuring existing refrigerant in the automobile air conditioner by releasing said button.

17. (Original) A device for measuring an amount of refrigerant in an automobile air conditioner and adding additional refrigerant thereinto according to Claim 16, wherein all of said container, said actuator, said hose, and said pressure gauge are integrally attached.

18. (Currently Amended) A T-connector junction adapted to charge an automobile air conditioner in an after-market environment, comprising:

a main body having a first passage in communication with and receiving a source of refrigerant, a second passage, and a third passage connectable to an automobile air conditioner service port, at least one of said first and third passages including a stem rotatably disposed in and projecting from said main body, said at least one stem including a first stem rotatably disposed in and projecting from said main body in said first passage, and a second stem rotatably disposed in and projecting from said main body in said third passage; and

a check valve in said T-connector at a proximal end of said first passage; and
a pressure gauge connected to said second passage,

wherein said check valve is biased closed to enable flow in from said third passage to said second passage, and wherein when fluid is introduced from said first passage at a pressure greater

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than the biasing pressure of said check valve, the fluid from said first passage passes through said check valve and exits said T-connector via said third passage.

and wherein when said check valve is closed, said pressure gauge measures a fluid pressure of said third passage,

and wherein when said main body is rotated relative to said stems, said pressure gauge turns with said main body.

19. (Cancelled).

20. (Currently Amended) A T-connector junction according to Claim ~~19~~ 18, said stem being included in said first passage, wherein when said main body is rotated relative to said stem, said pressure gauge turns with said main body.

21. (Cancelled).

22. (Original) A T-connector junction according to Claim 18, wherein said check valve comprises:

a stopper seatable on a shoulder; and

a spring biasing said stopper onto said shoulder to close said valve.

23. (Original) A T-connector junction according to Claim 22, further comprising a pressure gauge connected to said second passage, wherein when said check valve is closed, said pressure gauge measures a fluid pressure of said third passage.

24. (Cancelled).

25. (Cancelled).

26. (Cancelled).